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# The American Midland Naturalist

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## The Missouri Muhlenbergias.---II.

BY BENJAMIN FRANKLIN BUSH.

### KANSAS:

- Manhattan, *Kellerman*, September 25, 1885, M. B. G.  
Herb. No. 79969;  
Manhattan, *Kellerman*, September 25, 1885, M. B. G.  
Herb. No. 79977;  
Manhattan, *Kellerman*, September 16, 1888, M. B. G.  
Herb. No. 79984;  
Wyandotte, *Mackenzie*, October 3, 1897.

### ALABAMA:

- Cullman, *Eggert*, September 15, 1897, M. B. G. Herb. No.  
79853.

### FLORIDA:

- Apalachicola, *Chapman*, date not given, M. B. G. Herb.  
No. 785588;

### MISSISSIPPI:

- Biloxi, *Tracy*, September 1, 1899;  
Panola, *Eggert*, September 17, 1896, M. B. G. Herb. No.  
79732;  
Panola, *Eggert*, September 17, 1876, M. B. G. Herb. No.  
79728;  
Starkville, *Kearney*, 16, September 27, 1896, M. B. G.  
Herb. No. 79979;  
Starkville, *Tracy*, July 18, 1888, M. B. G. Herb. No. 79981.

### LOUISIANA:

- Felician, *Mohr*, September, U. S. Herb. No. 722798;  
Natchitoches, *Palmer* 6774, October 1, 1915, M. B. G.  
Herb. No. 794768.

## ARKANSAS:

Benton County, *Plank*, Summer, 1900, M. B. G. Herb.  
Herb. No. 82685;

Fulton, *Bush* 897, September 18, 1900 M. B. G. Herb. No.  
79870;

Texarkana, *Heller* 4161, August 27, 1898, M. B. G. Her.  
Herb. No. 79883;

## OKLAHOMA:

Verdigris, *Bush* 768, August 2, 1894, M. B. G. Herb. No.  
79970.

## TEXAS:

Columbia, *Bush* 1461, October 12, 1900, M. B. G. Herb.  
No. 79871;

Dallas, *Reverchon* 661, 1873, M. B. G. Herb. No. 79612;

Dallas, *Reverchon* 2252, October 5, 1900, M. B. G. Herb. No.  
79845;

Dallas, *Reverchon* 4207A, 1881, M. B. G. Herb. No 79844;

Elmo, *Reverchon* 3532, October 22, 1902, M. B. G. Herb.  
No. 79894;

Elmo, *Reverchon* 3538, October 22, 1902, M. B. G. Herb.  
No. 79860;

Elmo, *Reverchon* 3538, October 22, 1902, M. B. G. Herb.  
No. 79892;

Galveston Bay, *Joor*, October 19, 1884, M. B. G. Herb.  
No. 79856;

Houston, *Lindheimer*, September, 1841, M. B. G. Herb.  
No. 79693;

Industry, *Wurzlowl*, 1891, U. Ill. Herb.;

Kerrville, *Hitchcock* 5315, June 22, 1910, U. Ill. Herb.;

October 9, 1901, M. B. G. Herb. No. 75877;

Marshall, *Bush* 1011,

Palestine, *Joor*, October 21, 1884, M. B. G. Herb. No. 79870;

Rusk County, *Vinzent* 55, August, M. B. G. Herb. No.  
79873;

San Antonio, *Bush* 826, September 18, 1901, M. B. G. Herb.  
No. 79873;

Without definite locality, *Lindheimer*, date not given,  
M. B. G. Herb. No. 79990;

Without definite locality, *Reverchon*, date not given, M. B. G.  
Herb. No. 80105;

Without definite locality, *Reverchon*, date not given, M. B. G.  
No. 79893;

## MEXICO:

Coatepee *Hitchcock* 6663, September 2-4, 1910, U. Ill. Herb.

2. MUHLENBERGIA CURTISETOSA (Scribner) Bush, n. sp.  
*Muhlenbergia Schreberi curtisetosa*, Scribner *Rhodora* 9:17. 1907.

## SPECIMENS EXAMINED:

## MISSOURI:

Eagle Rock, *Bush* 377, September 24, 1896, M. B. G. Herb.  
No. 294597.

Eagle Rock, *Bush* 377, September 24, 1896, U. S. Herb. No.  
294597;

Eagle Rock, *Mackenzie*, September 24, 1896.

## ILLINOIS:

Champaign, *Clinton* 92, date not given, U. S. Herb. No.  
952420;

Without definite locality, *Wolf*, 1881, U. S. Herb. No.  
952419, TYPE of *Muhlenbergia Schreberi curtisetosa*.

3. MUHLENBERGIA SOBOLIFERA (Muhl.) Trin. Gram. Unifl.  
189, 1824.

*Agrostis sobolifera* Muhl.; Willd. Enum. 95. 1809.

*Trichochloa sobolifera* (Muhl.) Trin. Fund. Agrost. 117. 1820.

*Muhlenbergia sobolifera* Trin., Bush in Flora of Jackson County,  
Missouri, No. 860, 1885; Tracy in Flora of Missouri, No. 1645,  
1886; Eggert in Catalogue of Plants of Saint Louis, Missouri, 1891.

*Muhlenbergia sobolifera* (Muhl.) Trin., Mackenzie and Bush in  
Manual of the Flora of Jackson County, Missouri, No. 1, 1902;  
Daniels in Flora of Columbia, Missouri, No. 70, 1907; Palmer  
in Catalogue of Plants of Jasper County, Missouri, Nos. 753,  
856, 858, 1375, 2529, 2617, 2546, 3463, 3467 and 3475, 1916.

Northern Texas and northward, according to Dewey in Manual,  
l. c., referring of course to *M. setigera* q. v.

N. E. to Minn. and southward, according to Hitchcock in  
Manual.

N. H. and Mass. to Minn. Va. Tenn. and the Ind. Terr., according  
to Nash in Flora.

N. W. to Minn. south to Va. Tenn. and the Ind. Terr., according  
to Nash in Illustrated Flora.

From New York and New Jersey to Nebraska, Missouri, Kansas  
and Northern Arkansas.

## SPECIMENS EXAMINED:

## NEW YORK:

Ithaca, *Rowlee*, 1889, M. B. G. Herb. No. 79759;  
Pennyman, *Sartwell*, date not given, M. B. G. Herb. No. 79629;  
Western New York, *Gray*, date not given, M. B. G. Herb.  
No. 79627.

## PENNSYLVANIA:

Chester County, *Canby*, 1865, M. B. G. Herb. No. 79751;  
Conewago, *Heller* 4792, September 27, 1907, M. B. G. Herb.  
No. 79758.

## MARYLAND:

Harper's Ferry, *Holm*, June 10, 1912, U. Ill. Herb.;  
Harper's Ferry, *Holm*, June 10, 1912, M. B. G. Herb. No.  
779176.

## DISTRICT OF COLUMBIA:

Washington, *Ball and Paddock* 26, August 7, 1899, M. B. G.  
Herb. No. 79767.

## ILLINOIS:

Belleville, *Engelmann*, August, 1833, M. B. G. Herb. No.  
79660, the plant marked 2 on this sheet;  
Centerville, *Eggert*, August 31, 1877, M. B. G. Herb. No. 79752;  
Centerville, *Eggert*, August 31, 1877, M. B. G. Herb. No. 79753;  
Centerville, *Eggert*, August 31, 1877, M. B. G. Herb. No. 79754;  
Centerville, *Eggert*, August, 31, 1877, M. B. G. No. 79834;  
Centerville, *Eggert*, August 31, 1877, M. B. G. Herb. No.  
767046;  
Mount Carmel, *Schneck*, October 20, 1881, U. Ill. Herb.;  
Peoria, *Brendel*, date not given, U. Ill. Herb.;  
Peoria, *McDonald*, August, 1888, M. B. G. Herb. No. 773046;  
Taylorville, *Andrews*, August 20, 1898, U. Ill. Herb.;  
Taylorville, *Andrews*, August 26, 1898, U. Ill. Herb.;  
Wabash County, *Schneck*, July 1, 1879, U. Ill. Herb., the  
plant marked B on this sheet;  
Wabash County, *Schneck*, September 1, 1879, U. Ill. Herb.;  
Wabash County, *Schneck*, September 6, 1879, U. Ill. Herb.;  
Wabash County, *Schneck*, August 17, 1880, U. Ill. Herb.

## MISSOURI:

Allenton, *Letterman*, August, 1876, M. B. G. Herb. No. 772801;  
Allenton, *Letterman*, August, 1893, M. B. G. Herb. No. 772803;  
Bagnell, *Trelease*, September 22, 1897, M. B. G. Herb. No. 79765

- Bagnell, *Trelease*, September 18, 1897, M. B. G. Herb. No. 79760;  
Big Bend of the Meramec, *Glatfelter*, September 15, 1891, M. B. G. Herb. No. 80064;  
Cliff Cave, *Kellogg* 32, October 10, 1901, M. B. G. Herb. No. 79800;  
Cliff Cave, *Kellogg*, October 10, 1901, M. B. G. Herb. No. 950200;  
Current River, Carter County, *Trelease*, September 10, 1897, M. B. G. Herb. No. 79763;  
Dodson, *Bush* 1868, August 24, 1903, M. B. G. Herb. No. 79755;  
Dodson, *Bush* 1868, August 24, 1903, M. B. G. Herb. No. 79756;  
Dodson, *Hoffman* 145, September 17, 1916;  
Eolia, *Davis* 1440, October 23, 1911, M. B. G. Herb. No. 709440;  
Greene County, *Bush* 4814, September 4, 1893, M. B. G. Herb. No. 80038;  
Independence, *Bush*, 1884, U. S. Herb. No. 746205;  
Jackson County, *Bush*, September 4, 1893, M. B. G. Herb. No. 80040;  
Joplin, *Trelease*, October 7, 1897, M. B. G. Herb. No. 79761;  
McDonald County, *Bush*, September 1, 1893, M. B. G. Herb. No. 80037.  
Meramec Spring, Phelps County, *Trelease*, September 25, 1898, M. B. G. Herb. No. 79764;  
Noel, *Palmer* 4176, September 8, 1913, M. B. G. Herb. No. 717316;  
Noel, *Palmer* 4254, September 10, 1913, M. B. G. Herb. No. 717317;  
Pearl, *Standley* 9230, August 22, 1912, U. S. Herb. No. 688145;  
Randolph, *Mackenzie* 370, October 2, 1898;  
Sibley, *Bush* 4814, August 31, 1907, M. B. G. Herb. No. 78930;  
Sulphur Springs, Jefferson County, *Trelease*, October 23, 1898, M. B. G. Herb. No. 79762;  
Swope Park, *Mackenzie* 432, September 13, 1901;  
Swope Park, *Sigall* 50, September 16, 1906, M. B. G. Herb. No. 80054.

Webb City, *Palmer* 753, July 22, 1906, M. B. G. Herb. No. 8055;

Webb City, *Palmer* 856, July 22, 1906, M. B. G. Herb. No. 756979;

Webb City, *Palmer* 1375, August 4, 1908, M. B. G. Herb. No. 756957;

Webb City, *Palmer* 1375, August 4, 1908, M. B. G. Herb. No. 80056;

Webb City, *Palmer* 2546, July 22, 1909, M. B. G. Herb. No. 757604;

Webb City, *Palmer* 2546, July 22, 1909, M. B. G. Herb. No. 80058;

Webb City, *Palmer* 2549, July 19, 1909, M. B. G. Herb. No. 756956;

Webb City, *Palmer* 2617, September 2, 1909, M. B. G. Herb. No. 80061;

Wicks, *Kellogg* 31, July 20, 1898, U. S. Herb. No. 709440;

Wicks, *Kellogg* 31, July 20, 1898, M. B. G. Herb. No. 79766.

#### IOWA:

Steamboat Rock, *Pammel*, *Hume*, and *Fitz* 1346, date not given, U. S. Herb. No. 79771;

Winterset, *Carver* 1928, 1894, M. B. G. Herb. No. 79769;

#### KANSAS:

Cherokee County, *Hitchcock* 889, 1896, M. B. G. Herb. No. 79636;

Rosedale, *Mackenzie*, July 19, 1896;

#### NEBRASKA:

Weeping Water, *Williams*, August, 1899, M. B. G. Herb. No. 79628.

#### ARKANSAS:<sup>1</sup>

Eureka Springs, *Palmer* 4425, September 20, 1913, M. B. G. Herb. No. 716987.

Culms much branched from the base, 3-4 dm. tall, smooth, erect; infranodes slightly strigose below the glabrous nodes, at least the lower; leaves numerous, 5-10 cm. long, 3-5 mm. wide; panicles slender 1-1.5 dm. long, the short branches oppressed; spikelets 2-2.5 mm. long, acute, somewhat crowded; glumes broadly ovate, acute or acuminate, one- to two-thirds as long as the floret;

<sup>1</sup> MUHLENBERGIA SETIGERA (Scribner) Bush, n. sp.

*Muhlenbergia sobolifera setigera* Scribner, Rhodora 9:18. 1907.

lemma slender acuminate, hairy-tufted at the base, attenuate into a slender awn 1-5 mm. long.

Differs from *M. sobolifera* in having shorter, much-branched culms, shorter and narrower leaves, shorter and denser panicles, longer and narrower florets which are awned. Was referred by Vasey to *M. sylvatica*, *M. sylvatica*, var., *M. sobolifera*, *M. sobolifera* var., and *M. Willdenovii*.

Scribner based *M. sobolifera setigera* on Reverchon's 70 and 1054, referring to it also his No. 30, but gives neither dates nor localities for the type specimens. Many years ago Reverchon sent to Dr. George Vasey of the Department of Agriculture, specimens of Grasses to be determined, and these were numbered from 1 up, usually marking "Vasey" on his labels.

The specimens of *Muhlenbergia* which I am referring to this new species, which he sent to be named, were reported by Vasey under five names, *M. sylvatica*, *M. sylvatica* var.—, *M. sobolifera*, *M. sobolifera* var.—, and *M. Willdenovii*. Believing these to be distinct species and varieties, Reverchon numbered one 1049, another 1050 and so on up to 1054, these being the numbers given to these species and varieties in his MS. list of Texas Plants.

But the specimens sent to Dr. Vasey with numbers on the labels, and other numbers bearing the same numbers do not agree, and I feel confident that Reverchon used the same numbers over and over.

I have seen several of Reverchon's No. 70, supposedly part of the No. 70 sent to Vasey, and these are marked *M. sylvatica* var.—, presumably a MS. name of Vasey's, but these do not appear to be the same as that examined by Scribner. I have also examined two sheets of specimens marked 30 by Reverchon, collected at Ferris, Texas, but these differ from the No. 30 examined by Vasey and Scribner, and cited by Scribner as belonging to his *M. sobolifera setigera*, in being short-awned. These Ferris specimens are named *M. sobolifera* var.—presumably a MS. name of Vasey's, and the date of collection is stated as 1884 and 1888, while the one cited by Scribner is said to be dated 1885. One of the Ferris specimens is numbered 1665, which makes it apparent that Reverchon separated this variety from *M. sobolifera*, and assigned it a much later number in his MS. list of Texas Plants.

Having been intimately acquainted with Mr. Reverchon, I learned much about his numbering, the earlier collecting being numbered according to his MS. list, which was arranged in accord-



ance with his collecting. When Reverchon first began collecting plants in Texas, in the seventies, the first species he collected he listed as No. 1, the next No. 2, and so on up to about No. 1884, when I persuaded him to adopt the serial system of numbering, beginning with the last number in his MS. list, and giving each collection a different number.

According to this earlier method of numbering, every species bore the same number, no matter where and when collected, as for instance, *M. sobolifera* was No. 1052, and every collection of what he took to be *M. sobolifera* he gave that number to, no matter where it was collected, in 1878, 1880, 1882 or 1885.

I have also examined one sheet of Reverchon's No. 1054, which is labeled *M. Mexicana* by Reverchon, cited by Scribner as part of the type of *M. sobolifera setigera*, but this appears to me to be only *M. Mexicana*. It differs from *M. sobolifera setigera* in having the lower glumes acuminate and nearly as long as the lemma, the lemma merely acute or acutish and not awned.

#### SPECIMENS EXAMINED:

##### OKLAHOMA:

Sapulpa, *Bush* 769, July 22, 1894, M. B. G. Herb. No. 79634, labeled *M. sobolifera* by Bush;

Verdigris, *Bush* 770, August 2, 1894, U. S. Herb. No. 217323, labeled *M. sobolifera* by Bush and *M. Mexicana* by Scribner.

##### TEXAS:

Dallas, *Reverchon* 1054, September, 1880, U. S. Herb. No. 49861, labeled *M. Mexicana filiformis* by Reverchon, and *M. sobolifera* by Scribner;

Dallas, *Reverchon* 2253, October 5, 1900 U. S. Herb. No. 411579, labeled *M. Mexicana* by Bush, and *M. sylvatica* by Scribner;

Dallas, *Reverchon* 42073, August 26, 1880, U. S. Herb. No. 501272, labeled *M. tenuiflora* by Bush;

Dallas, *Reverchon* 2253, October 5, 1900, M. B. G. Herb. No. 75666, labeled *M. Mexicana* by Reverchon;

Dallas, *Reverchon* 2253, October 5, 1900, M. B. G. Herb. No. 75665, labeled *M. Mexicana* by Bush;

Dallas, *Reverchon* 2253, October 5, 1900, M. B. G. Herb. No. 75646, labeled *M. Mexicana* by Bush;

Dallas, *Reverchon* 1052, 1882, M. B. G. Herb. No. 79768, labeled *M. sobolifera* by Reverchon;

- Dallas, *Reverchon* 4207, August, 1880, M. B. G. Herb. No. 79757, labeled *M. sobolifera* by Bush;
- Dallas County, *Reverchon*, date not given, M. B. G. Herb. No. 79719, labeled *M. sylvatica* by Reverchon;
- Ferris, *Reverchon* 30, 1884, M. B. G. Herb. No. 80712, labeled *M. sobolifera* var. — by Reverchon, evidently a MS. name of Vasey's;
- Ferris, *Reverchon* 30, 1884, M. B. G. Herb. No. 80111, labeled *M. sobolifera* var. — by Reverchon, no doubt part of sheet No. 80112;
- Ferris, *Reverchon* 16y65, 1888, M. B. G. Herb. No. 80710, labeled *M. sobolifera* var. — by Reverchon;
- Without definite locality, *Reverchon* 70, 1879, type, U. S. Herb. No. 49863, labeled *M. Willdenovii* by Reverchon and Scribner, and *M. sylvatica* var. — by Scribner;
- Without definite locality, *Reverchon* 70, date not given, M. B. G. Herb. No. 80082, labeled *M. Willdenovii* by Reverchon, and evidently co-type of Scribner's variety;
- Without definite locality, *Reverchon*, date not given, presumably the same collection as No. 70 on sheet No. 80082, M. B. G. Herb. No. 80084, labeled *M. sylvatica* by Reverchon.
- Without definite locality, *Reverchon* 1049, 1881, possibly the same collections as specimens on sheet No. 80084, M. B. G. Herb. No. 80083, labeled *M. sylvatica* var. — by Reverchon, probably a MS. name of Vasey's;
- Without definite locality, *Reverchon* 1052, date not given, marked "127 Vasey," labeled *M. solobifera* by Reverchon, probably being the name supplied by Vasey;
- Without definite locality, *Reverchon*, M. B. G. Herb. No. 79891;
- Without definite locality, *Reverchon* 1054, date not given, M. B. G. Herb. No. 75661;
- Without definite locality, *Reverchon* 30, 1885, U. S. Herb. No. 952417, labeled *M. Mexicana*, and *M. sobolifera* var. — by Scribner;
- Without definite locality, but presumably Dallas, *Reverchon* 1054, 1880, U. S. Herb. No. 49862, labeled *M. sobolifera*, and *M. Willdenovii* by Scribner.
4. MUHLENBERGIA BRACHYPHYLLA Bush, n. sp.  
Culms 2-4 dm. tall, much branched, much branched from the

base, the old culms stramineous, shining; infranodes glabrous; nodes glabrous; leaves numerous, short, narrow, the larger 5-7 dm. long, the upper reduced to 1-2 dm.; principal nerves of the larger leaves 7-9; panicles terminal on the culms and branches, and from all the upper and middle sheaths, numerous, very slender, short, the divisions appressed, the terminal and those terminating the branches usually short-exserted, those from the lowest sheaths usually long-exserted on very slender peduncles; spikelets 3mm. long, rather slender; glumes broadly lanceolate, attenuate or cuspidate, about one-half as long as the lemma; lemmas lanceolate, awned, minutely bearded at the base, sometimes awnless or short-awned; awns slender, about as long as the lemmas or sometimes shorter.

Type specimens collected at Webb City, Missouri, *Palmer* 2734, September 20, 1909, specimens in the Herbarium of the Missouri Botanical Garden, sheet No. 757387.

The species here proposed has been referred to *M. Torreyi* on the one hand and to *M. tenuiflora* on the other, but differs conspicuously from these species in being lower, more branched, in having more numerous leaves which are shorter and narrower, with but 7-9 principal nerves, in having numerous panicles, which are mostly short-exserted, in having glabrous yellow polished infranodes and glabrous nodes. It is much nearer *M. Mexicana*, to which it bears a strong resemblance, but differs in having shorter and broader glumes, awned lemmas, and long-exserted panicles from the lower sheaths.

SPECIMENS EXAMINED:

MISSOURI:

Golden City, *Palmer* 4575, October 6, 1913, M. B. G. Herb. No. 717221;

Webb City, *Palmer* 2734, September 20, 1909, M. B. G. Herb. No. 757387, TYPE;

Webb City, *Palmer* 2734, September 20, 1909, M. B. G. Herb. No. 80062, TYPE collection.

ILLINOIS:

Bluffs Lake, *Eggert*, September 24, 1875, M. B. G. Herb. No. 79733.

5. MUHLENBERGIA TENUIFLORA (Willd.) B. S. P. Cat. Pl. N. Y. 67, 1888.

*Agrostis tenuiflora* Willd. Sp. Pl. 1:364, 1787.

*Agrostis pauciflora* Bush, Fl. Am. Sept. 1:63, 1814.

*Trichochloa longiseta* Trin. Agrost. 117, 1820.

*Muhlenbergia Willdenovii* Trin. Gram. Unifl. 188, 1824.

*Muhlenbergia Willdenovii* Trin., Tracy in Flora of Missouri, No. 1647, 1886; Eggert in Catalogue of Plants of Saint Louis, Missouri, 1891.

*Muhlenbergia tenuiflora* (Willd.) B. S. P., Mackenzie and Bush in Manual of the Flora of Jackson County, Missouri, No. 5, 1902; Daniels in Flora of Columbia, Missouri, No. 74, 1907.

Northern Texas to Mass. and Minn., Dewey in Manual of the Plants of Western Texas.

Mass. to Ont. Minn. and southward, Hitchcock in Manual.

Mass. to S. Ont. Minn. Ala. and Texas, Nash in Flora.

Mass. to Minn. Ala. and Texas, Nash in Illustrated Flora.

#### SPECIMENS EXAMINED:

West Haven, *Kirk* 976, August 17, 1913, U. S. Herb. No. 725822, labeled *M. tenuiflora* by Kirk, and *M. sobolifera setigera* by the Department of Agriculture.

#### NEW YORK:

Pennyman, *Sartwell*, date not given, M. B. G. Herb. No. 79582, the plant marked 2 on this sheet;

Western New York, *Gray*, date not given, M. B. G. Herb. No. 79587.

#### ONTARIO:

Foster's Flats, *Macoun* 26, 242, July 11, 1901, U. S. Herb. No. 952525.

#### NEW JERSEY:

Cranberry Lake, *Mackenzie* 2453, September 16, 1906, M. B. G. Herb. No. 80101;

Sussex County, *Mackenzie* 1095, September 25, 1904;

Sussex County, *Mackenzie* 2453, September 16, 1906.

#### PENNSYLVANIA:

Germantown, *Digyn*, date not given, M. B. G. Herb. No. 79583.

#### DISTRICT OF COLUMBIA:

Washington, *Ward*, July 28, 1878, M. B. G. Herb. No. 80085.

#### OHIO:

Margaretta Ridge, *Moscley*, July 28; 1896, U. S. Herb. No. 431146.

## TENNESSEE:

Cowan, *Ruth* 26, July, 1898, U. S. Herb. No. 952526.

## KENTUCKY:

Big Black Mountain, *Kearney* 234, August, 1893, U. S. Herb. No. 952527;

Big Black Mountain, *Kearney* 234, August, 1893, U. S. Herb. No. 822978;

Big Black Mountain, *Kearney* 234, August, 1893, M. B. G. Herb. No. 79586;

Harlan Court House, *Kearney* 33, August, 1893, U. S. Herb. No. 952528;

Harlan Court House, *Kearney* 33, August, 1893, U. S. Herb. No. 822979;

Harlan Court House, *Kearney* 33, August, 1893, M. B. G. Herb. No. 79588;

Pineville, *Mackenzie* 962, August-September, 1904.

## ILLINOIS:

Edgemont, *Craig*, October 23, 1910, M. B. G. Herb. No. 82662;

Elgin, *Vasey*, date not given, U. Ill. Herb.;

Peoria, *Brendel*, date not given, U. Ill. Herb.;

Peoria, *McDonald*, August, 1889, M. B. G. No. 773047;

St. Clair County, *Eggert*, August 3, 1877. M. B. G. Herb. No. 79838;

St. Clair County, *Eggert*, August 3, 1877, M. B. G. Herb. No. 739936;

St. Clair County, *Eggert*, August 3, 1877, N. D. Herb. No. 8143;

Urbana, *Seymour* and *White*, September 26, 1886, U. Ill.

Wabash County, *Schneck*, July 2, 1879, in part, the plant marked A on this sheet, U. Ill. Herb.;

Wabash County, *Schneck*, September 4, 1904. U. Ill. Herb.

## MISSOURI:

Allenton, *Letterman*, August 1, 1900, M. B. G. Herb. No. 867670;

Allenton, *Letterman*, August 1, 1900. M. B. G. Herb. No. 772805;

Sibley, *Mackenzie* 548 A, October 2, 1901;

Without definite locality, *Bush*, date not given, U. S. Herb. No. 950198.

## NORTH CAROLINA:

Montreat, *Standley and Bollman* 9966 August 23, 1913.

U. S. Herb. No. 688883;

Waynesville, *Standley* 3687, September 9, 1910, U. S. Herb. No. 514551.

## MICHIGAN:

Saugatuck, *Umbach*, August 5, 1898.

## IOWA:

Iowa City, *Hitchcock*, date not given, M. B. G. Herb. No. 79585;

Winterset, *Carver* 260, September, 1884, M. B. G. Herb. No. 82688;

## ALABAMA:

Jackson County, *Chase* 4490, October 15, 1907, U. S. Herb. No. 590834;

Jackson County, *Chase*, October 15, 1907, U. Ill. Herb.

## ARKANSAS:

Mount Mena, *Trelease*, October 1, 1898, M. B. G. Herb. No. 79444.

## OKLAHOMA:

Sapulpa, *Bush* 773, September 20, 1894, M. B. G. Herb. No. 79621.

6. MUHLENBERGIA RACEMOSA (Michx.) B. S. G. Prel. Cat. N. Y. 67. 1888.

*Agrostis racemosa* Michx. Fl. Bor. Am. 1:53. 1803.

*Agrostis setosa* Muhl. Gram. 68. 1817.

*Trichochloa glomerata* Trin. Fund. Agrost. 117. 1820.

*Trichochloa calycina* Trin. Fund. Agrost. 117. 1820.

*Polypogon racemosus* (Michx.) Nutt. Gen. 1:51. 1818.

*Muhlenbergia glomerata* (Trin.) Gram Unifl. 191. 1824.

*Muhlenbergia glomerata ramosa* Vasey, Cat. Grasses U. S. 40. 1885. 1885.

*Muhlenbergia racemosa ramosa* (Vasey) Beal, Grasses U. S. 2:253. 1896.

*Muhlenbergia glomerata* Trin., Bush in Flora of Jackson County, Missouri, No. 564, 1882; Tracy in Flora of Missouri, No. 1642, 1886; Eggert in Catalogue of Plants of Saint Louis, Missouri, 1891.

*Muhlenbergia racemosa* (Michx.) B. S. P., Mackenzie and Bush in Manual of the Flora of Jackson County, Missouri, No. 4,

1902; Daniels in Flora of Columbia, Missouri, No. 72, 1907.

N. F. to Wash. and B. Col. and southward in the East to N. Car., and in the West to Texas (?), N. Mex. and Ariz., Scribner and in the West to Texas (?), N. Mex. and Ariz., Scribner in Rhodora, 1. c.

N. F. to N. J. and southward, Hitchcock in Manual.

N. F. to B. Bot., N. J., N. Car., Mo. and N. Mexico, Nash in Flora.

N. F. to B. Col. south to N. J. and N. Mex. Nash in Illustrated Flora.

New Foundland to Washington, south to Alabama and Nevada.

#### SPECIMENS EXAMINED:

##### NEWFOUNDLAND:

Exploits River and Badger Brook, *Robinson* and *Schrenk* 196, August 13, 1894, M. B. G. Herb. No. 80096;

Exploits River and Badger Brook, *Robinson* and *Schrenk* 196, August 13, 1894, M. B. G. No. 79741.

##### MAINE:

Crystal, *Knight*, September 15, 1905;

Mount Desert Island, *Rand* and *Redfield*, August 21, 1897, M. B. G. Herb. No. 79710;

St. Francis, *Fernald* 169, August 21, 1889, M. B. G. Herb. No. 79967.

##### NEW HAMPSHIRE:

Gilmanton, *Blake*, September 6, 1861, M. B. G. Herb. No. 79909;

Sanbornton, *Carter*, 128, September 20, 1902, U. Ill. Herb.

##### VERMONT:

Bellows Falls, *Carey*, 1741, M. B. G. Herb. No. 79677.

##### CANADA:

Lamberton, *Glatfelter*, August 2, 1892, M. B. G. Herb. No. 80092.

##### NEW YORK:

Bergen, Collector not given, August 30, 1907, U. Ill. Herb.;

Niagara Falls, *Engelmann*, August, 1840, M. B. G. Herb. No. 79678;

Niagara Falls, *Morong*, August 28, M. B. G. Herb. No. 78010;

Pennyran, *Sartwell*, date not given, M. B. G. Herb. No. 79961;

Western New York, *Gray*, date not given, M. B. G. Herb. No. 79965;

Western New York, *Gray*, date not given, M. B. G. No. 79962;

Western New York, *Gray*, date not given, M. B. G. No. 79676;

Without definite locality, collector and date not given, M. B. G. Herb. No. 79954.

ONTARIO:

Bicaber, *Hoy*, August, 1883, M. B. G. Herb. No. 79624;

Lambton County, *Glatfelter*, August 22, 1892, M. B. G. Herb. No. 80066.

NEW JERSEY:

Cranberry Lake, *Mackenzie* 2428, September 16, 1906, M. B. G. No. 80100.

Mount Arlington, *Mackenzie* 918, August 21, 1904;

Sussex County, *Mackenzie* 2428, September 16, 1906;

Without definite locality, *Curtis* M. B. G. Herb. No. 79675;

INDIANA:

Wells County, *Deam*, September 11, 1901, M. B. G. Herb. No. 80076.

ILLINOIS:

Augusta, *Mead*, 1843, M. B. G. Herb. No. 82695;

Bluffs Lake, *Eggert*, September 11, 1877, M. B. G. Herb. No. 79908;

Champaign, *Clinton*, October 1, 1895. U. Ill. Herb.;

Chicago, *Glatfelter* 643, August 20, 1893, M. B. G. Herb. No. 80071;

Dupont, *Eggert*, September 11, 1877, M. B. G. No. 739390;

Dupont, *Eggert* 11, 1877, M. B. G. Herb. No. 738989;

Dupont, *Eggert*, September 11, 1877, M. B. G. Herb. No. 772999;

Dupont, *Eggert*, September 11, 1877, M. B. G. Herb. No. 79840;

Dupont, *Eggert*, September 11, 1877, N. D. Herb. No. 8144;

Dupont, *Eggert*, September 11, 1877, N. D. Herb. No. 8140;

East Alton, *McDonald*, August, 1897, U. Ill. Herb.;

Elgin, *Sherff* 1946, September 14, 1912. U. Ill. Herb.;

Falling Springs, *Engelmann*, September, 1844, M. B. G. Herb. No. 79673, evidently part of the collection sheet



No. 79674, the plant marked A on that sheet exactly matching this;

Lake Villa, *Gleason* and *Shobe* 128, August 6, 1906, U. Ill. Herb.;

Lake Villa, *Gleason* and *Shobe* 200, August 9, 1900, U. Ill. Herb.;

Oquawka, *Patterson*, September, year not given, M. B. G.

Herb. No. 772777;

Peoria, *Brendel*, date not given, U. Ill. Herb.;

Princeville, *Chase* 940, October 14, 1900, U. Ill. Herb.;

Princeville, *Chase* 1269, September 23, 1906, U. Ill. Herb.;

Wady Petre, *Chase* 1943, September 22, 1908, U. Ill. Herb.;

Without definite locality, *Patterson*, date not given, M. B. G.

Herb. No. 785591.

#### MISSOURI:

Banks of the Mississippi, presumably just South of Saint Louis, *Engelmann*, August, 1843, the plants marked B on this sheet, the other plant marked A on this sheet evidently belonging to sheet No. 79673;

Congo, *Hoffman*, October 7, 1916;

Courtney, *Bush* 6508, October 16, 1911, U. S. Herb. No. 673597;

Creve Coeur Lake *Kellogg* 28, September 25, 1901, U. S. Herb. No. 950202;

Creve Coeur Lake, *Norton*, September 11, 1898, M. B. G. Herb. No. 82683;

Dodson, *Hoffman*, September 10, 1916;

Hannibal, *Davis* 1044, September 16, 1911, U. S. Herb. No. 673942;

Hannibal, *Davis* 1044, September 16, 1911, M. B. G. Herb. No. 709096;

Jackson County, *Bush* 59, August 26, 1890, M. B. G. Herb. No. 768677;

Jackson County, *Bush* 1876, August 28, 1891, M. B. G. Herb. No. 80054;

Jackson County, *Bush*, September 11, 1892, M. B. G. Herb. No. 80044;

Jackson County, *Bush*, September 22, 1893, M. B. G. No. 80050;

Jackson County, *Bush* 405, September 22, 1892, U. S. Herb. No. 950210;

- Jefferson Barracks, *Eggert*, September 11, 1877, M. B. G. Herb. No. 79907;  
 Randolph, *Mackenzie* 368, October 2, 1898, M. B. G. Herb. No. 89720;  
 Randolph, *Mackenzie* 369, October 2, 1898;  
 Sheffield, *Hoffman*, October 7, 1916;  
 Sheffield, *Mackenzie* 658, October 18, 1901;  
 St. Louis, *Eggert* 225 a, September 4, 1877, U. S. Herb. No. 950203, exactly same date and collection as specimens on sheet No. 79907;  
 St. Louis, *Engelmann*, date not given, M. B. G. Herb. No. 79963.

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### Panicum Lineare, Linn.

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BY OLIVER A. FARWELL.

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In the *Species Plantarum* Ed. 2, Vol. 1, p. 85, 1762, Linnaeus published *Panicum lineare* as a new species with the following description: "Panicum spicis digitatis subquaternis linearibus, flosculis solitariis secundis muticis. Habitat in Indiis. Culmi prostrati, laeves, ramosi. Spiculae lineares, rectae, angustae. Flores subtus alterni. Calycis squama exterior brevior, patens, rachi adherens."

There is no specimen in the Linnaean Herbarium and there is no reference to older authors. The species must be interpreted from the description alone. It is self evident from the diagnosis that the species belongs to the *Digitaria* group. It can not be *P. Dactylon* Linn. since it is *laeves* and *prostrate* while the latter has the spikes *basi interiore villosis* and the plant is *sarmentis repentibus*; it can not be *P. sanguinale* Linn. or *P. filiforme* Linn. since in these the flowers are *in pairs* while in *P. lineare* they are placed *singly*. The habitat *in Indiis* may mean India and the East Indies, or it may mean in both the East and West Indies. Linnaeus used it both ways, I believe, but in the present instance the presumption is that he meant in both the East and West Indies since in the *Mantissa* II 323, 1771 he refers to his *P. lineare*, without comment, the *P. lineare* Burm. Ind. 25, t. 10. f. 2 and the *Gramen*